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Federal Communications Commission  
Office of the Secretary

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April 27, 1992

ORIGINAL

Donna R. Searcy, Secretary  
Federal Communications Commission  
1919 M Street, N. W.  
Room 222  
Washington, D.C. 20554

RE: ET Docket No. 92-9  
Notice of Proposed Rulemaking  
Released February 7, 1992  
Redevelopment of Spectrum to Encourage Innovation  
in the Use of New Telecommunications Technologies

Dear Ms. Searcy:

On behalf of Union Telephone Company there is submitted herewith a set of comments in the above-referenced matter.

While formal comments in this matter were to have been filed by April 21, 1992, late receipt by the Commission of this set of informal comments is respectfully requested. Union Telephone Company presents a detailed factual and financial account of how it would be detrimentally affected as an existing point-to-point microwave carrier by the pending proposal; the supporting data for the comments has taken this amount of time to compile.

Should any questions arise concerning this matter, please communicate directly with this office.

Very truly yours,

*Pamela L. Gist*

Pamela L. Gist

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~~EXHIBIT FOR LATE FILED~~

# UNION TELEPHONE COMPANY

SERVING THE NORTHERN SLOPE OF THE HIGH UINTAS  
P.O. BOX 160  
MOUNTAIN VIEW, WYOMING 82939  
(307) 782-6131

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Federal Communications Commission  
Office of the Secretary

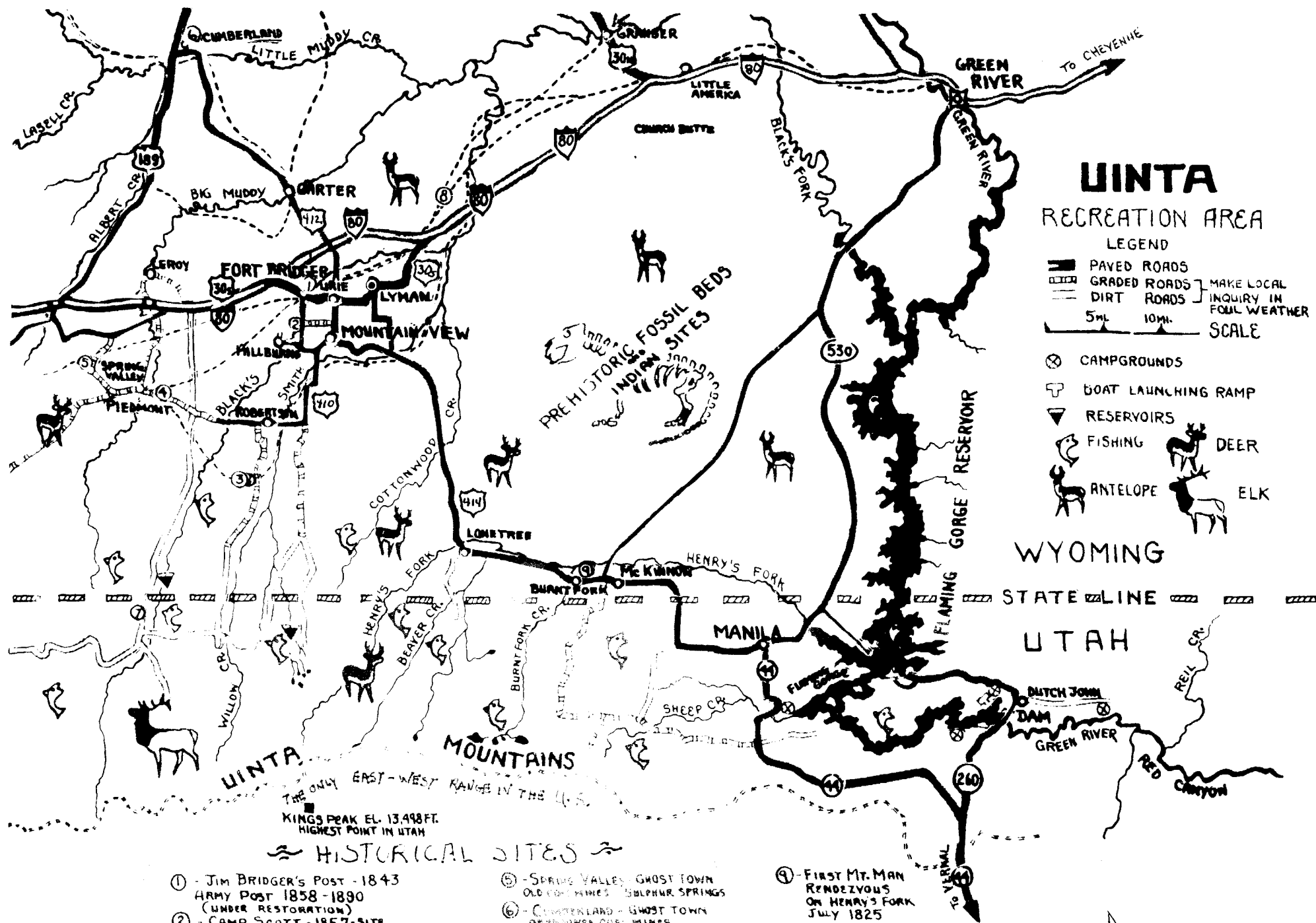
April 24, 1992

Federal Communications Commission  
2025 "M" Street N.W.  
Room 6218  
Common Carrier  
Washington, D.C. 20554

Gentlemen:

Union Telephone Company is a small rural telephone company located in Southwest Wyoming near the Utah and Colorado borders. It serves approximately 5,000 square miles of wireline territory with approximately 2800 subscribers. Union Telephone Company also is the cellular provider on the "B" side in Wyoming three, Colorado one and Daggett county in Utah 5 Rural Service Areas. This territory contains slightly more area than the state of Ohio. At present, Union has approximately 1500 cellular customers. These customers are spread throughout the coverage area shown on the accompanying coverage map. Within this area Union Telephone Company customers can make calls for \$.35/min and a fixed charge of \$20.00 per month. Roamers are charged \$.70 per minute with no daily fees. If the 2 GHZ spectrum is reallocated and no longer usable to connect our cell sites, these rates will increase dramatically.

Traditionally in the West, the 2 GHZ common carrier microwave band has been the service of choice when long distances had to be spanned, and where not many customers were on the route. Thus the 2 GHZ band has been one of the keys to providing low cost telecommunications in this area. Therefore, we have made extensive use of these frequencies in providing service in our area. Imagine our consternation when we heard that these frequencies were to be removed from this service and assigned to new use for Personal Communications Service, and that in as short a time as five years, our microwave system will in part have to be rebuilt to accommodate the new users. If the task were as simple as simply changing the radio frequencies and possibly changing a feedhorn in the dish, this would not be a large problem. However, because of the distances involved, the extensive use of grid dishes, and the need to make these microwave sites as unobtrusive as possible by using short towers usually thirty feet in height, to change the frequencies used in our microwave system will involve considerable expense and time. The towers will have to be raised to accommodate space diversity antennas if the current path lengths are to be preserved. This may not always be possible as environmental concerns may put a maximum height on the towers that we can use. Otherwise, another active repeater site will need to be inserted in the path. Antennas will need to be replaced with more expensive solid,

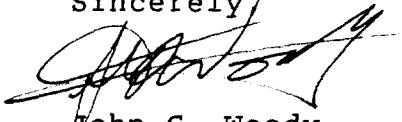


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high performance dishes, if the frequencies are to be changed . The radios will have to be replaced with only a fraction of their useful life expended, the coax used in conjunction with the 2 GHZ system will have to be replaced. In otherwords, the system in place will need to be re-engineered and then most of the components will need to be replaced or reworked. Generally microwave radios have useful lives of twelve to fifteen years, but towers, waveguides, and antennas are considered to have much greater lives of twenty to thirty years. Therefore, if the system is rebuilt in five to ten years a great deal of the cost of the system will still be on the books and have to be written off. This will, of course, result in greater costs, resulting in higher prices for communications throughout our system and indeed throughout the West. A project this size could add as much as a third of our current investment to the total cost of the system. This will not result in an inconsequential increase in fees for users of the system, but without any offsetting increase in the utility of the system. At present, Union Telephone has an investment of \$1,291,408.91 that is at risk as a result of this decision. This amounts about a third of our total investment in cellular service. To replace this radio will result in an additional investment of approximately \$1,432,900.00 dollars. Only \$200,000.00 dollars of the current 2 GHZ investment is more than two years old.

Union Telephone Company is not alone in being faced with this problem as both cellular and telephone companies throughout the nation have made extensive use of these 2GHZ frequencies. While the 2GHZ frequencies have not been used to a great extent in the metropolitan areas where none of the benefits from this frequency band offset the congestions problems found in the metro areas, the rural areas find that the attributes of this portion of the spectrum have made it the most economical choice to connect the network in sparsely populated areas. We would request that the FCC reconsider it's decision to reallocate these frequencies from common carrier useage. This would be very beneficial in allowing small rural companies such as ours to continue to provide low cost high quality telecommunications service to rural america. Thank you for your consideration of this matter.

Sincerely,



John G. Woody  
Chief Engineer

# UNION TELEPHONE COMPANY

SERVING THE NORTHERN SLOPE OF THE HIGH UINTAS  
P.O. BOX 160  
MOUNTAIN VIEW, WYOMING 82939  
(307) 782-6131

## Costs to Convert From a 2 GHZ Microwave System to a 11 GHZ Microwave System

April 21, 1992

### Materials and labor costs by Site

#### Christmas Meadows

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	1	\$35,000.00	\$35,000.00
10 Ft. 11GHZ Microwave Antenna	1	\$15,000.00	\$15,000.00
Labor	40	\$55.00	\$2,200.00
			<hr/> \$52,200.00

#### Medicine Butte

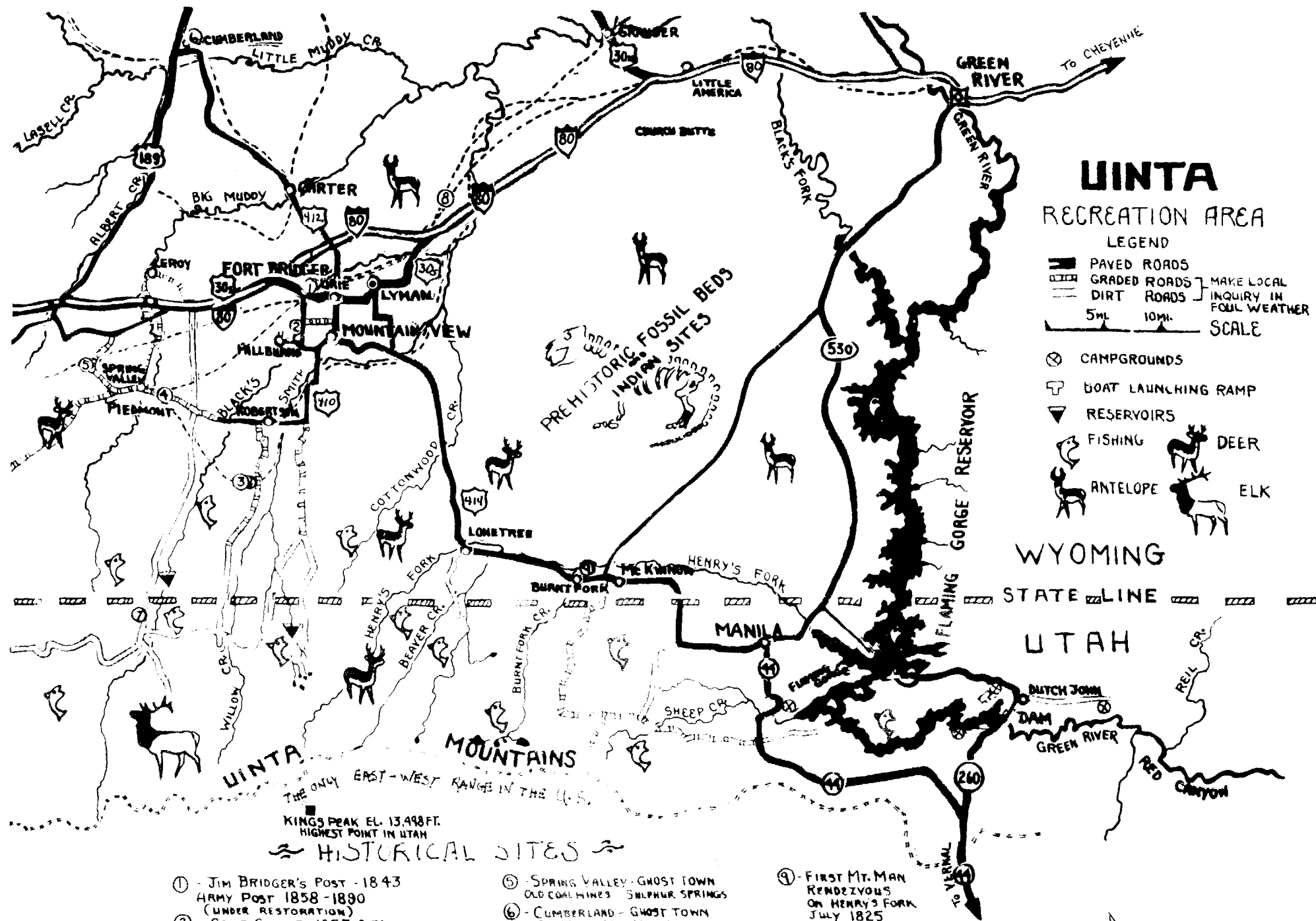
Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	1	\$35,000.00	\$35,000.00
10 Ft. 11GHZ Microwave Antenna	1	\$15,000.00	\$15,000.00
Labor	40	\$55.00	\$2,200.00
			<hr/> \$52,200.00

#### Queally Peak

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	1	\$35,000.00	\$35,000.00
12 Ft. 11GHZ Microwave Antenna	1	\$20,000.00	\$20,000.00
6 Ft. Diversity Recieve Antenna	1	\$8,000.00	\$8,000.00
40 Ft. Tower Self Supporting	1	\$12,000.00	\$12,000.00
Labor	150	\$55.00	\$8,250.00
			<hr/> \$83,250.00

#### Hogsback Ridge

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	2	\$35,000.00	\$70,000.00
12 Ft. 11GHZ Microwave Antenna	2	\$20,000.00	\$40,000.00
6 Ft. Diversity Recieve Antenna	2	\$8,000.00	\$16,000.00
40 Ft. Tower Self Supporting	1	\$12,000.00	\$12,000.00
Labor	200	\$55.00	\$11,000.00
			<hr/> \$149,000.00



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Rim Station (Kismet Peak)

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	2	\$35,000.00	\$70,000.00
12 Ft. 11GHZ Microwave Antenna	1	\$20,000.00	\$20,000.00
11 GHZ Feedhorn for a 10ft dish	1	\$3,500.00	\$3,500.00
6 Ft. Diversity Recieve Antenna	1	\$8,000.00	\$8,000.00
Labor	150	\$55.00	\$8,250.00
			<u>\$109,750.00</u>

Rendevous Peak

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	1	\$35,000.00	\$35,000.00
11 GHZ Feedhorn for a 10ft dish	1	\$3,500.00	\$3,500.00
Labor	100	\$55.00	\$5,500.00
			<u>\$44,000.00</u>

Jagged Butte

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	1	\$35,000.00	\$35,000.00
12 Ft. 11GHZ Microwave Antenna	1	\$20,000.00	\$20,000.00
6 Ft. Diversity Recieve Antenna	1	\$8,000.00	\$8,000.00
10 Ft. Tower Extention	1	\$5,000.00	\$5,000.00
Labor	150	\$55.00	\$8,250.00
			<u>\$76,250.00</u>

White Mountain

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	2	\$35,000.00	\$70,000.00
12 Ft. 11GHZ Microwave Antenna	2	\$20,000.00	\$40,000.00
6 Ft. Diversity Recieve Antenna	2	\$8,000.00	\$16,000.00
10 Ft. Tower Extention	1	\$5,000.00	\$5,000.00
Labor	200	\$55.00	\$11,000.00
			<u>\$142,000.00</u>

Limestone Mountain

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	2	\$35,000.00	\$70,000.00
12 Ft. 11GHZ Microwave Antenna	1	\$20,000.00	\$20,000.00
10 Ft. 11GHZ Microwave Antenna	1	\$15,000.00	\$15,000.00
6 Ft. Diversity Recieve Antenna	1	\$8,000.00	\$8,000.00
10 Ft. Tower Extention	1	\$5,000.00	\$5,000.00
Labor	200	\$55.00	\$11,000.00
			<u>\$129,000.00</u>

Sand Hills

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	2	\$35,000.00	\$70,000.00
12 Ft. 11GHZ Microwave Antenna	1	\$20,000.00	\$20,000.00
10 Ft. 11GHZ Microwave Antenna	1	\$15,000.00	\$15,000.00
6 Ft. Diversity Recieve Antenna	1	\$8,000.00	\$8,000.00
10 Ft. Tower Extention	1	\$5,000.00	\$5,000.00
Labor	250	\$55.00	\$13,750.00
			<u>\$131,750.00</u>

Copper Mountain

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	1	\$35,000.00	\$35,000.00
12 Ft. 11GHZ Microwave Antenna	1	\$20,000.00	\$20,000.00
6 Ft. Diversity Recieve Antenna	1	\$8,000.00	\$8,000.00
Labor	180	\$55.00	\$9,900.00
			<u>\$72,900.00</u>

Grizzly Ridge

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	1	\$35,000.00	\$35,000.00
12 Ft. 11GHZ Microwave Antenna	1	\$20,000.00	\$20,000.00
6 Ft. Diversity Recieve Antenna	1	\$8,000.00	\$8,000.00
Labor	120	\$55.00	\$6,600.00
			<u>\$69,600.00</u>



Moosehead Mountain

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	2	\$35,000.00	\$70,000.00
12 Ft. 11GHZ Microwave Antenna	2	\$20,000.00	\$40,000.00
6 Ft. Diversity Recieve Antenna	2	\$8,000.00	\$16,000.00
10 Ft. Tower Extention	1	\$5,000.00	\$5,000.00
Labor	200	\$55.00	\$11,000.00
			<u>\$142,000.00</u>

Juniper Mountain

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	2	\$35,000.00	\$70,000.00
12 Ft. 11GHZ Microwave Antenna	1	\$20,000.00	\$20,000.00
10 Ft. 11GHZ Microwave Antenna	1	\$15,000.00	\$15,000.00
6 Ft. Diversity Recieve Antenna	1	\$8,000.00	\$8,000.00
10 Ft. Tower Extention	1	\$5,000.00	\$5,000.00
Labor	240	\$55.00	\$13,200.00
			<u>\$131,200.00</u>

Cedar Mountain

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	2	\$35,000.00	\$70,000.00
12 Ft. 11GHZ Microwave Antenna	1	\$20,000.00	\$20,000.00
10 Ft. 11GHZ Microwave Antenna	1	\$15,000.00	\$15,000.00
6 Ft. Diversity Recieve Antenna	1	\$8,000.00	\$8,000.00
10 Ft. Tower Extention	1	\$5,000.00	\$5,000.00
Labor	240	\$55.00	\$13,200.00
			<u>\$131,200.00</u>

Mount Werner

Equipment List	Quantity	Cost	
Microwave Radio 11GHZ 12 DS1	1	\$35,000.00	\$35,000.00
11 GHZ feedhorn for a 12' dish	1	\$5,000.00	\$5,000.00
6 Ft. Diversity Recieve Antenna	1	\$8,000.00	\$8,000.00
Labor	120	\$55.00	\$6,600.00
			<u>\$54,600.00</u>

2 GHZ to 11 GHZ conversion Costs in 1992 Dollars

Total System Cost \$1,432,900.00

## CELLULAR SERVICE RATES

Monthly Rate            \$ 20.00

Air Time \_\_\_\_\_ \$ .35/min

Connection Fee \_\_\_\_\_ \$ 25.00

### Also Available

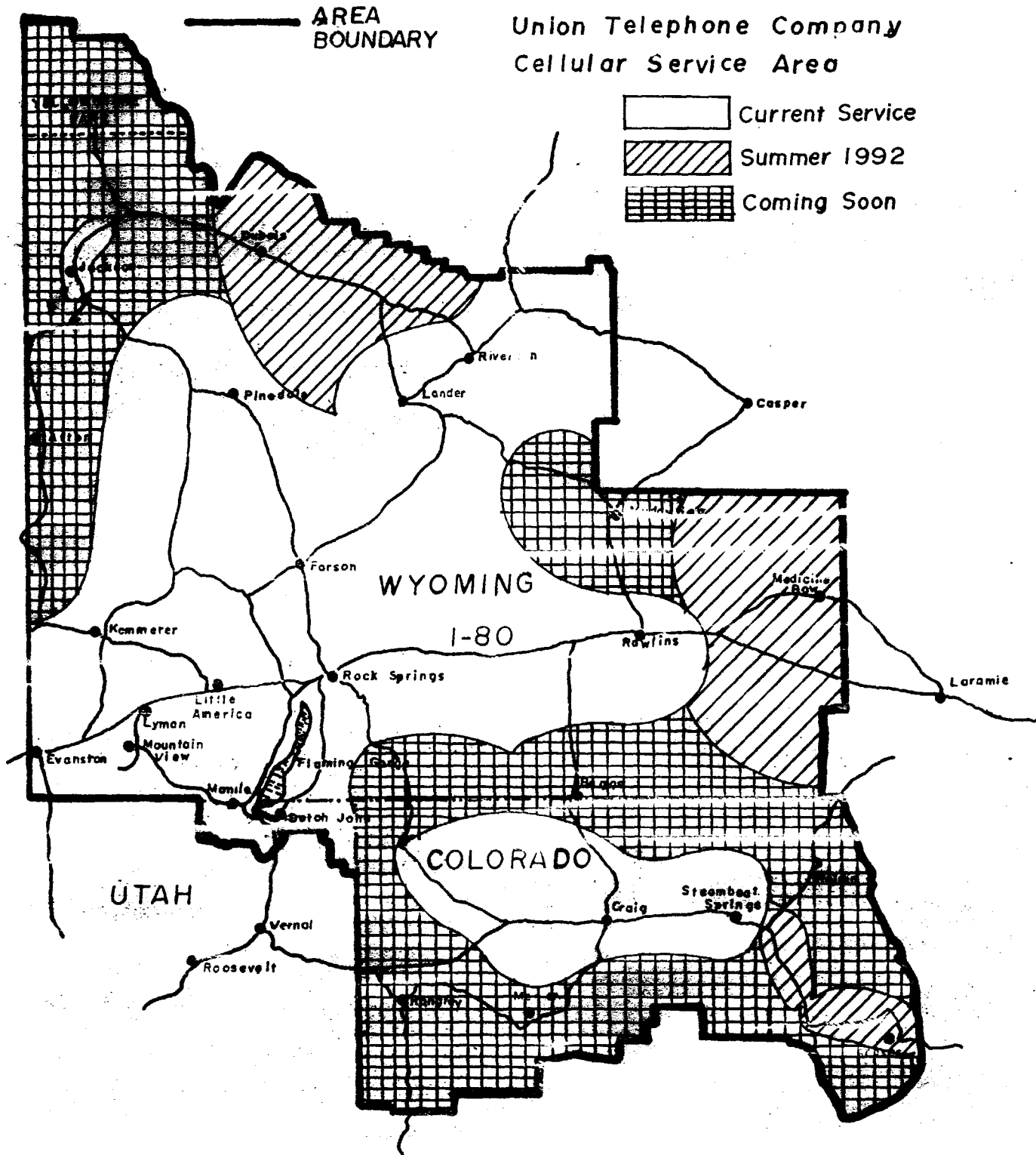
## Call Waiting

## Call Forwarding

### 3 Way Calling

## Call Transfer

## Follow Me Roaming



Investment for 2 GHZ Radio Equipment  
Union Telephone Company as of 8/29/92

Site	Investment
Rim	\$80,396.00
Christmas Meadows	\$107,476.00
Medicine Butte	\$97,552.66
Hogsback	\$100,642.16
Craig	\$80,170.64
Quealy	\$64,727.49
Jagged	\$40,040.75
Juniper	\$86,532.79
Mt. Werner	\$46,301.16
Limestone	\$84,818.39
Rendezvous	\$67,309.99
White Mtn.	\$83,166.36
Sand Hill	\$78,740.09
Copper Mtn.	\$35,396.40
Moosehead	\$80,986.79
Grizzley	\$41,096.35
South Rawlins	\$37,580.40
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Total Investment	\$1,212,934.46
	=====